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INSECTS WHICH ATTACK THE COAST REDWOOD

HUBERT L. PERSON
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FOREST INSECT LABORATORY,
UNIVERSITY OF CALIFORNIA,
BERKELEY, CALIFORNIA.

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The redwood (Sequoia sempervirens (Lambert) Endlicher) is probably as free from insect attack as any American tree. There are no so-called primary insects which attack this species seriously, and it is doubtful if any redwood tree has ever been killed by insects alone. In this age of insects this is a remarkable exception to the general rule, and probably accounts to no small extent for the longevity of redwoods.

However, there are a few insects of minor importance which are known to feed upon the foliage, the bark, the bark and wood, or the wood of the redwood tree.

Of these groups the bark and wood feeders are probably of most importance. Two of the bark beetles of the family Scolytidae mine the cambium and the outer sapwood of the branches of injured trees and occasionally assist in the killing of parts of a weakened redwood tree. Both species belong to the genus Phloeosinus, the most common being P. sequoiae Hopk. and the other P. cupressi Hopk.

The only other bark and cambium feeder on living trees is the redwood pitch worm, one of the Lepidoptera. The species is Vespamima sequoiae Ny.Edw., the adult of which resembles a yellowjacket. The larvae are a yellowish-white and bore through the cambium of the branches, usually around the nodules. A pitch mass is formed and the outer part of the branch is often killed. This damage is probably not very common.

There are a number of Coleoptera and one Hymenopteron which bore in the sapwood or heartwood of dead redwoods. Included in this group are two ambrosia beetles (Gnathotrichus retusus and sulcatus(Lec.)); one Buprestid, the common anthaxia (Anthaxia oenogaster Castelnau and Gory); five Cerambycids, the redwood borer (Judolia impura (Lec.)), Stranglia obliterata (Hald.)), Leptura matthewsi Lec., Semanotus lignea (Fabr.) and Phymatodes nitidus Lec.; and one Hymenopteron, the western horntail, Sirex areolatus (Cresson).

There are also a number of insects which feed on the foliage of living redwoods, but fortunately none of them have ever been known to injure the trees at all seriously. The most important member of this group is the redwood scale (Aonidia shastae (Coleman)). Ferris has reported this species as occasionally abundant on redwood foliage. The ivy or oleander scale (Aspidiotus hederae (Vallot)), and the black araucaria scale (Chrysomphalus rossi (Maskell)) are also found on redwoods at times. Some of the mealybugs, especially the cypress and redwood mealybugs (Pseudococcus ryani and sequoiae) also feed on redwood foliage, as does the redwood chafer (June beetle), Dichelonyx valida.

The following are the best references on redwood insects:

Essig, E.O. 1926 Insects of Western North America (see host list p.951, Redwood)

Keen, F.P. 1929 Bark Beetles of the Family Scolytidae. (Mimeographed copy can be obtained from J.M. Miller, 341 Giannini Hall, University of California, Berkeley.)

HUBERT L. PERSON,
California Forest Experiment Station.

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